

Mild Cognitive Impairment

**American Academy of
Neurology**

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Mild Cognitive Impairment

- **Definition:** clinically defined by an impairment in one or more cognitive domains for age, but do not meet criteria for dementia (Petersen et al., 1999)
- **Significance:** Mild Cognitive Impairment (MCI) is clinically identifiable precursor of dementia, particularly Alzheimer's disease (AD)

Mild Cognitive Impairment

- **Prevalence-population studies** (Panza et al., 2005)
 - ~3-5% for age 60 and older
 - ~15% for age 75 and older
- **Incidence** (Bischkopf et al., 2002)
 - Slightly higher for men than women
 - Higher in older or with less education
 - ~12-15 per 1000 person-years for 65 and older
 - ~54 per 1000 person-years for age 75 and older

Mild Cognitive Impairment

- **Established clinical consensus criteria**
(Winblad et al., 2004)
 - 1. Patient is not normal, but not demented (DSM-IV)**
 - 2. Evidence of cognitive deterioration for age**
 - Objective measured decline over time in cognitive task performance, and/or
 - Subjective report of decline by patient and/or informant and objective cognitive deficits
 - 3. Preserved activities of daily living and minimal to no impairment on complex instrumental functions**

Mild Cognitive Impairment

- **Rate of progression to dementia:**
 - **Mayo Study:** 220 followed for 3-6 years
 - ~12% per year (~1-2% for population)
 - **Religious Study:** 211 followed for ~4.5 years
 - 30% deceased (1.7x higher than w/o MCI)
 - 34% converted to AD (3.1x higher than w/o MCI) (Bennett et al., 2002)
- **Can progress to AD, vascular dementia** (Solfrizzi et al., 2004), **Lewy Body Dementia** (Bennett et al., 2005)

Mild Cognitive Impairment

- Neuropsychological impairments initially described for verbal and visual memory – amnestic MCI (Petersen et al., 1999)
- Deficits now described in single or multiple cognitive domains (e.g., language, visuospatial) yielding (Petersen, 2004; Winblad et al., 2004; Lopez et al., 2005)
 - Multidomain amnestic (multiple cognitive domains including memory)
 - Multidomain nonamnestic
 - Single domain nonmemory

Pathology

- Possible etiologies are
 - Degenerative, vascular, metabolic, traumatic, psychiatric, or combination
- Pathology reflects condition as progresses
- If deceased prior to conversion to dementia, pathology is intermediate between normal and AD pathology

Mild Cognitive Impairment

- No other specific code captures
- Code needed as significant number diagnosed and diagnosis has profound implications
- General dementia diagnoses (290.x) not accurate since MCI has cognitive deficits but not impaired daily functions
- Memory loss (780.93) not capture since MCI does not have to be memory impairment

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- Organic personality syndrome (310.1) is for a memory deficit occurring after organic damage and refers primarily to the personality change
- Transient global amnesia (437.7) not relevant since MCI not transient
- Alzheimer's disease (331.0), Vascular dementia (290.4), Frontotemporal dementias (331.19), and Dementia with Lewy Bodies (331.82) not accurate since are dementias

Mild Cognitive Impairment

- Would recommend coding in 331.x series (331.8)
 - Is not simply memory loss
 - Is a significant clinical change in cognitive status
 - Mild Cognitive Impairment (331.83)